



## **The Internet and Public Libraries**

This report examines Internet availability and quality in public libraries. Specific statistics for Iowa are compared to national data.

Unless otherwise noted, all data for this report is derived from *Public Libraries and the Internet 2007: Report to the American Library Association* and is current as of 2007. This publication is an extensive, yearly survey of U.S. public libraries conducted by the Information Use Management and Policy Institute in the College of Information at Florida State University. Respondents answered the survey between November 2006 and February 2007. It can be accessed in full online:

[http://www.ii.fsu.edu/plinternet\\_reports.cfm](http://www.ii.fsu.edu/plinternet_reports.cfm)

Statistics that refer to a library include all branches of that library. All percentages are estimated to be accurate within a  $\pm 5\%$  range.

### **Internet Capability and Access**

Internet capability refers to a library's ability to access the Internet. This does not necessarily imply that these libraries provide access to the public. In all but high poverty, rural areas virtually all U.S. libraries are Internet capable. In high poverty, rural areas approximately 85% of libraries are Internet capable.

Over 90% of Internet capable libraries provide access to the public. Idaho has the lowest percentage at 90.8%, and half of the states have achieved 100% public access. In Iowa 99.4% of libraries provide free Internet access to the public.

Libraries are the only provider of free Internet access in much of the country. Nationwide, 73.1% of libraries are the only source of free Internet access in their patron user areas. Approximately 84% of Iowa's libraries provide the only free source of Internet access locally. This is the second highest percentage among the states.



**Table 2: Approximate Time Required to Download Files<sup>1</sup>**

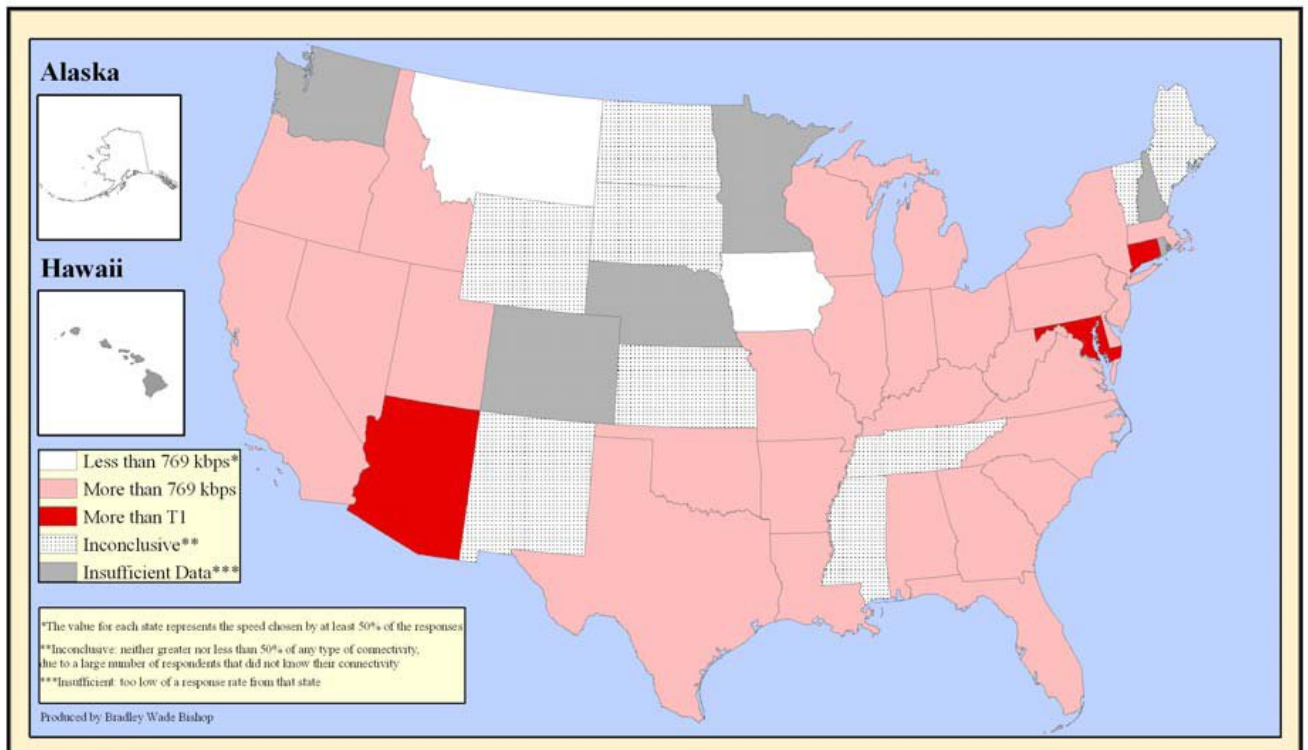
File Size	50 Kbps	100 Kbps	200 Kbps	450 Kbps	1,100 Kbps	3,000 Kbps	8,000 Kbps	12,000 Kbps
100 KB	16 s	8 s	4 s	1.8 s	0.7 s	0.3 s	0.1 s	0.07 s
5 MB	14 m	7 m	3.5 m	1.6 m	38.1 s	14 s	5.2 s	3.5 s
1 GB	47.7 h	23.9 h	11.9 h	5.3 h	2.2 h	47.7 m	17.9 m	11.9 m

Times are measured in seconds (s), minutes (m), and hours (h).

Note that these times are broad estimates. Also, the examples given for each file size above are highly dependent on the quality of sound and video.

As Table 1 shows, library internet speeds differ greatly. Rural libraries tend to have slower speeds than suburban libraries which in turn tend to have slower speeds than urban libraries. Figure 2 compares connection speeds by state. The highest speeds are found in libraries using T1 lines or better to connect to the Internet. A T1 line actually consists of 24 individual channels that are usually sold separately. A full T1 connection offers a speed of 1,544 Kbps. Fractional T1 access may be offered at varying connection speeds, in increments of 56 Kbps. Thus, two libraries using T1 lines can still have different connection speeds.<sup>2</sup>

**Figure 2: Public Library Internet Speeds by State**



<sup>1</sup> "Bandwidth Calculator." [BROADBANDReports.Com](http://www.dslreports.com/calculator). 20 Dec. 2007 <<http://www.dslreports.com/calculator>>.

<sup>2</sup> Beal, Vangie. "Types of Internet Connections: a Quick Reference." [Webopedia](http://www.webopedia.com/quick_ref/internet_connection_types.asp). 7 Apr. 2006. 20 Dec. 2007 <[http://www.webopedia.com/quick\\_ref/internet\\_connection\\_types.asp](http://www.webopedia.com/quick_ref/internet_connection_types.asp)>.

Each library has unique needs and the disparity in Internet access speeds does not always imply libraries are not keeping up with public demand. Table 3 presents the adequacy of Internet speeds in the U.S. and Iowa libraries. This data is based on survey responses from librarians.

**Table 3: Adequacy of Library Internet Speeds**

	<b>Insufficient to meet patron needs</b>	<b>Sufficient to meet patron needs at some times</b>	<b>Sufficient to meet patron needs at all times</b>	<b>Don't Know</b>
% of U.S. Libraries	15.9	36.4	43.6	1.1
% of Iowa Libraries	12.4	28.7	56.2	1.6

In Iowa, 29.1% of libraries report no interest in increasing Internet connection speed. Another 3.9% of Iowa libraries plan to increase their speed within the next year. Some libraries in Iowa would like to increase speeds but are unable to do so. Funds are a problem for the 17.4% of Iowa libraries unable to afford speed increases. Approximately 20% of Iowa libraries have reached the maximum speeds possible given their infrastructure.

**Availability Issues**

Providing Internet services required having computer workstations. In Iowa, 13.4% of libraries report there are consistently fewer computer workstations than patrons who wish to use them, 53.9% report some need for more workstations, and 32.7% report no need for more workstations.

This report was prepared in December, 2007 by the Iowa Civic Analysis Network (I-CAN), a non-partisan public policy undergraduate research group at the University of Iowa. For additional research on this or other issues, please visit our website at <http://www.uiowa.edu/~ican> or contact us at [studorg-i-can@uiowa.edu](mailto:studorg-i-can@uiowa.edu).